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Report of the Committee of Experts on Environmental-Economic Accounting

Note by the Secretary-General

In accordance with a request of the Statistical Commission at its forty-first session (see E/2010/24, chap. I.A), the Secretary-General has the honour to transmit the report of the Committee of Experts on Environmental-Economic Accounting. The report elaborates on the progress of work of the Committee of Experts, in particular with regard to the project on the revision of the System of Environmental-Economic Accounting (SEEA). It describes the process leading to a set of recommendations for the issues in the issue list for volume 1 of the revised SEEA, expected to be submitted to the Commission at its forty-third session in 2012 for adoption as an international statistical standard. It also provides an update on the progress of work on establishing a road map, including a list of issues, for volume 2, and reports on the discussion on the scope and content of volume 3. The report also describes the activities of the Committee in the promotion of SEEA, as well as coordination activities. Points for discussion are provided in paragraph 63 of the present report.

* E/CN.3/2011/1.

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Report of the Committee of Experts on Environmental-Economic Accounting

I. Introduction

1. At its forty-first session, the Statistical Commission:

(a) Welcomed the report of the Committee of Experts on Environmental-Economic Accounting, expressed its appreciation for the progress of the work carried out by the Committee and thanked the Chair of the Committee for the leadership demonstrated;

(b) Expressed its appreciation for the methods of work of the Committee of Experts, in particular with regard to the broad consultation undertaken with regard to the mandate, governance and programme of work of the Committee;

(c) Agreed with the mandate and governance of the Committee of Experts;

(d) Noted with appreciation the highest priority being given to the timely revision of the System of Environmental-Economic Accounting (SEEA) in the Committee work programme, and urged the Committee to prioritize work for the completion of volume 1;

(e) Expressed its appreciation for the progress of the work of the London Group on Environmental Accounting in resolving expediently the majority of the issues on the issue list for volume 1 of the revised SEEA; and thanked the Group and its Chair for that achievement;

(f) Expressed appreciation to Member States and international and supranational organizations for their financial and in kind contributions to the revision of SEEA;

(g) Urged the Committee of Experts to closely consult with the various relevant entities and groups, including the secretariat of the United Nations Framework Convention on Climate Change, in the course of its work;

(h) Welcomed the role played by the Committee of Experts in coordinating its programme of work with various city groups, technical expert groups and intergovernmental organizations working in the areas of environmental-economic accounting and supporting statistics, in order to avoid duplication;

(i) Adopted part I of the international recommendations for water statistics, endorsed part II as supplementary guidance and encouraged the implementation of the recommendations in countries;

(j) Requested that the international recommendations for water statistics be translated into the official languages of the United Nations as quickly as possible.

2. The present report is organized as follows: section II summarizes the progress of work of the Committee, in particular on the SEEA revision. Section III provides an update on the progress of work in the preparation of the subsystem SEEA for Energy (SEEA-Energy). Section IV reports on the promotion of SEEA. Section V reports on the activities of groups working within the Committee mandate on the development of relevant environment, energy and other statistics that support

environmental-economic accounting. Section VI presents the points for discussion for the Commission.

II. Revision of SEEA

3. At its thirty-eighth session, the Statistical Commission stressed the importance of the work of the Committee in elevating the level of the *Handbook of National Accounting: Integrated Environmental-Economic Accounting 2003* to that of an international statistical standard based on an agreed issues list. At its fortieth and forty-first sessions the Commission reconfirmed that the revision of SEEA is the highest priority of the work programme of the Committee, and urged the Committee to carry out the work on volume 1, the statistical standard, according to the plan and governance outlined in the project management framework submitted as a background document to the fortieth session of the Statistical Commission.

4. The revision process is on track. A trust fund held at the United Nations Statistics Division and managed by the Bureau of the Committee has been established, which includes contributions from countries, and international and supranational organizations.

5. The editor of the revised SEEA, Carl Obst, was appointed in May 2010 by the Bureau of the Committee under delegated authority by the Committee. He was selected from among several candidates that responded to a worldwide call for applicants. He progressively drafts recommendations for change and clarification and prepares drafts of the text of the revised SEEA, according to the Project schedule; participates in technical discussions as needed; participates in the meetings of the Committee of Experts on Environmental-Economic Accounting and of its Bureau and editorial board, as well as in other technical meetings, as needed; consults with Chairs of city groups and other expert groups; provides oversight of the overall internal consistency of the revised SEEA and coherence with other macroeconomic statistical standards.

6. The editorial board was also appointed by the Bureau of the Committee of Experts in May 2010. It comprises experts in environmental-economic accounts and national accounts from Australia, Canada, the Netherlands, Norway, the Statistical Office of the European Commission (Eurostat), the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the Statistical Division. It reviews the outcome papers being prepared by the various groups working on resolving the issues in the issue list; reviews the comments received through the global consultations; takes decisions on the final outcome papers outlining the recommendations on the list of issues; reviews draft chapters before they are submitted for global consultation; ensures internal consistency of the revised SEEA, in particular with regard to addressing the issues in the issue list; ensures that the comments received through the global consultation are taken into account; strives for consensus on controversial issues and advises the Bureau on issues that cannot be resolved.

7. As indicated in the project management framework, the revised SEEA will consist of three volumes, or three parts: volume 1, consisting of the international statistical standard that will stand alone in its own right; volume 2, consisting of topics on which consensus could not be reached but that are highly policy-relevant;

and volume 3, consisting of the applications of the accounts presented in volumes 1 and 2.

8. This section describes progress made on the three volumes.

Volume 1

9. A list of 21 issues for volume 1 was endorsed by the Statistical Commission and progress on the deliberations by the London Group on Environmental Accounting was reported to the Commission at its forty-first session in February 2010.

10. The work of the editor and the editorial board has focused on finalizing the recommendations on the 21 issues in the issue list. The process leading to the development of the recommendations involves:

(a) Finalizing the views of the London Group on each issue;

(b) Drafting outcome papers with associated recommendations for each issue;

(c) Posting of the outcome papers for global consultation with 30 to 45 days allowed for feedback;

(d) Summarizing feedback on the recommendations;

(e) Presenting recommendation for endorsement by the Statistical Commission upon recommendation by the Committee of Experts.

11. The 21 issues covered a broad range of topics requiring expertise from experts in various areas of statistics within and beyond national statistical offices. The Chair and the secretariat of the Committee of Experts sent a letter to countries requesting them to establish a coordination mechanism with the national statistical office playing an important role of contact for gathering feedback on the various issues.

12. To facilitate the consultation process within the countries and international agencies, issues have been grouped in batches covering topics that required certain expertise. Five batches of issues are being posted for global consultation. As at 30 November, four batches had been posted and the final batch will be posted on 10 December. Global consultation on the first two batches is complete and consultation on the third and fourth batches will be completed in December. Global consultation on the final batch of issues will close on 17 January.

13. The results of all global consultation will be summarized and considered by the editorial board and recommendations will be put forward to the Committee of Experts. Final recommendations will be sent for consideration to the Statistical Commission and will be presented as a background document accompanying this report.

14. The following table outlines the current status (as at 30 November 2010) regarding all 21 issues. The background document containing the recommendations proposed for the revised SEEA will also include a more up-to-date status report.

No.	SEEA revision issue	London Group consultation finalized	Outcome paper finalized and posted	Global consultation process complete	Recommendations finalized
1	Harmonization of material flow analysis with SEEA concepts	Yes	Due 10 December	Due 17 January	Due late January
2	Classification of physical flows	Yes	Due 10 December	Due 17 January	Due late January
3a	Bridging energy accounts and energy balances	Yes	Yes	Due 24 December	Due late January
3b	Boundary issues in air emission accounts	Yes	Yes	Due 24 December	Due late January
4	Renewable energy	Yes	Yes	Yes	Due early January
5	Environmental goods and services sector	Yes	Yes	Due 6 December	Due early January
6	Environmentally related taxes	Yes	Yes	Due 6 December	Due early January
7	Environmentally related subsidies	Yes	Yes	Due 6 December	Due early January
8	Emission permits	Yes	Due 10 December	Due 17 January	Due late January
9	Classification of natural resource use and management activities and expenditures	Yes	Yes	Due 6 December	Due early January
10	Classification of assets	Yes	Due 10 December	Due 17 January	Due late January
11	Categorization of mineral and energy resources	Yes	Yes	Due 24 December	Due late January
12	Valuation of assets: a case study on the valuation of fish stocks	Yes	Yes	Yes	Due early January
13	Recording depletion for non-renewable resources	Yes	Yes	Yes	Due early January
14	Recording depletion for renewable resources	Yes	Yes	Yes	Due early January
15a	Treatment of decommissioning costs	Yes	Yes	Yes	Due early January
15b	Recording the ownership of mineral-related assets	Yes	Yes	Yes	Due early January

No.	*SEEA revision issue*	*London Group consultation finalized*	*Outcome paper finalized and posted*	*Global consultation process complete*	*Recommendations finalized*
16	Treatment of water in artificial reservoirs	Yes	Due 10 December	Due 17 January	Due late January
17	Recording of losses	Yes	Yes	Due 24 December	Due late January
18	Valuation of water	Considered under other issues	NA	NA	NA
19	Land classifications	Yes	Due 10 December	Due 17 January	Due late January
20	Recording of soil and its valuation	Yes	Yes	Yes	Due early January
21	Forest accounts	Yes	Yes	Yes	Due early January

15. An outline for volume 1 of the revised SEEA has been determined that comprises six chapters. The drafting of these chapters will continue more actively in the first part of 2011. It is intended that global consultation on the draft chapters take place up to the summer of 2011. A final round of global consultation on the entire volume will take place in the fall of 2011. It is intended that volume 1 will be ready for adoption by the Statistical Commission at its forty-third session in February 2012. The draft outline of volume 1 is included in the annex to the present report.

Volume 2

16. While the work of the Committee of Experts has prioritized volume 1, it also discussed at its June meeting the way forward for developing volume 2. In particular, a subgroup of the Committee consisting of the World Bank, the European Environment Agency and the Statistics Division was established. It is in the process of developing a road map for volume 2, which will be first discussed by the Bureau and then presented to the Committee of Experts at its 6th meeting in June 2011. Plans for volume 2, which because of its nature will not be an international standard, will be reported to the Commission at its forty-third session in 2012.

Volume 3

17. Work is progressing on finalizing the purpose and structure of volume 3 of the revised SEEA. Volume 3 is intended to provide users and compilers with an understanding of how information in the SEEA framework can be used to undertake analysis and research on environmental issues in an economic context.

18. Discussion of the potential structure of volume 3 at the meeting of the Committee of Experts in June 2010 led to the formation of a subgroup of Committee members, who were asked to consider the following five issues:

(a) Focus of volume 3;

(b) Structure and content of volume 3;

(c) Timing with target dates for progressive completion of content by February 2013;

(d) Status of volume 3 in relation to SEEA as an international standard;

(e) Process for the endorsement of volume 3.

19. The subgroup was asked to provide recommendations to the Bureau of the Committee in early 2011, with final recommendations for discussion and endorsement at the meeting of the Committee of Experts in June 2011. These plans will be reported to the Statistical Commission in 2012.

20. As part of the process of developing the recommendations, the subgroup presented a paper to the meeting of the London Group held in October in Santiago. The discussion focused on issues (a), (b) and (c) mentioned above, and provided valuable input to the subgroup in terms of the target audience, style, tone and content for volume 3. It has been generally agreed that volume 3 will focus on the application of SEEA and will not have the status of an international standard.

III. Progress in the drafting of the subsystem SEEA-Energy

21. The Committee acknowledged that the work of SEEA-Energy provided useful input in resolving the issues on energy in the issue list related to energy accounts for the revision of SEEA. It reiterated the importance of completing the drafting of SEEA-Energy, which was suspended owing to resource constraints, be resumed.

22. The Committee stressed the importance of ensuring that the international recommendations for energy statistics and SEEA-Energy are consistent, to the maximum extent possible. It also requested that a joint implementation programme for the international recommendations for energy statistics and SEEA-Energy be developed.

23. Work on SEEA-Energy has resumed with the financial assistance of the Federal Statistical Office of Germany. It is expected that a draft of SEEA-Energy will be discussed by an expert group meeting in the first quarter of 2011.

24. The Committee reiterated that SEEA-Energy will be a subsystem of SEEA and as such will be fully consistent with SEEA. It will provide further elaboration of the concepts, classifications and accounts related to energy already included in SEEA. It is expected that it will be presented to the Commission for adoption in 2012 as an international statistical standard.

IV. Promotion of SEEA

25. The Committee discussed at length the promotion of SEEA. It expressed concerns that the benefits of SEEA are not as well understood as other international statistical standards. Without this understanding, countries may be reluctant to make investments in environmental-economic accounting, which, in turn, may have

implications for the implementation of SEEA and its subsystems; e.g. SEEA for Water (SEEA-Water) and SEEA-Energy.

26. In addition to developing volume 3 of the revised SEEA, the Committee considered it important that the statistical community play an important promotion and advocacy role at the national and international levels to explain the benefits of SEEA.

27. In this context, the Committee is trying to ensure that SEEA is recognized as the monitoring and evaluation framework for various policy frameworks, including, for example, the green economy and the green growth project.

28. Furthermore, as part of the promotion, the Committee envisaged the preparation of "glossy" publications that would explain through country examples the benefit of SEEA to answer specific policy questions. Three glossy publications are under preparation: one on sustainable consumption and production is being prepared by the United Kingdom Department for Environment, Food and Rural Affairs, one on climate change is being prepared by Statistics Netherlands and one on water is being prepared by the Australian Bureau of Statistics, the World Water Assessment Programme and the Statistical Division.

29. The Conference of the International Association of Official Statistics on official statistics and the environment, held in Chile in October 2010, provided an excellent opportunity to promote SEEA within the international statistical community. One of the keynote presentations, made by the Chair of the Committee of Experts, demonstrated how SEEA provides a system's approach for informing environmental-economic policy. This presentation was well received. The Conference also included a number of other presentations directly relevant to SEEA.

V. Coordination

30. As mandated by the Statistical Commission, the Committee of Experts discussed the progress of activities carried out by city groups and other technical expert groups working within the mandate of the Committee of Experts. These include activities of the London Group on Environmental Accounting, the Oslo Group on Energy Statistics, the Intersecretariat Working Group on Environment Statistics, the OECD/Eurostat task force on emission permits in the national accounts and the work of Eurostat, OECD and the Economic Commission for Europe related to the work programme of the Committee. In addition to the above-mentioned groups, the Committee has followed with interest several relevant initiatives under way in Europe.

1. London Group on Environmental Accounting

31. The London Group on Environmental Accounting met from 25 to 28 October 2010, in Santiago, to discuss several issues in the issue list for the SEEA revision. A few issues concerned finalizing the recommendations for the statistical standard, volume 1. Others dealt with the editorial aspects of this volume, such as the annotated outline of volume 1 and the list of tables. The London Group also discussed, in the context of volume 2, the development of ecosystem and carbon accounts, as well as issues related to policy uses and the dissemination of SEEA (the so-called glossy publications).

2. Oslo Group on Energy Statistics[1]

32. The Oslo Group on Energy Statistics held its 5th meeting from 1 to 4 February to review the draft of the international recommendations for energy statistics. The meeting agreed on steps to be taken to complete the work on the international recommendations in 2010, with the aim of presenting them for adoption to the Statistical Commission at its forty-second session in 2011.

33. The drafting and preparation of the international recommendations for energy statistics has been the main focus of the Oslo Group during 2009 and 2010. A provisional draft of the recommendations was sent out for worldwide consultation in 2010. Overall there was strong support for the draft. Members of the Oslo Group were active participants in the process at meetings and through electronic discussions. Regular communication between the members of the Oslo Group was ensured by the Oslo Group website, which is administered by the secretariat of the Oslo Group at Statistics Norway. The website is a forum for discussion among members and has served as a support in the drafting process of the international recommendations.

34. The main activity of the Oslo Group in 2011 will be related to the drafting of chapters of the Energy Statistics Compilers Manual. The Manual is intended to assist energy statistics compilers in the implementation of the international recommendations for energy statistics and the forthcoming SEEA-Energy, and with other uses within the context of national accounts.

35. The 6th meeting of the Oslo Group will be held in Canberra, in May 2011, and will be hosted by the Australian Bureau of Statistics. It will be dedicated to formulating the issues to be addressed in the Energy Statistics Compilers Manual and the drafting of chapters. The meeting will also focus on cooperation with other groups, and on the collection of national and international best practices.

3. OECD work related to the work programme of the Committee of Experts

36. The work carried out by OECD relevant to the work programme of the Committee of Experts includes the following three areas: work on indicators to monitor progress towards green growth, work on material flows and resource productivity, and the review of the OECD state of the environment questionnaire.

37. At the OECD ministerial council meeting in May 2010, ministers supported an interim report on the OECD green growth strategy. The strategy, to be completed for the Ministerial meeting in 2011, has an analytical and policy component and features a report on green growth indicators to help monitor the transition towards green growth. For the purpose of developing indicators, green growth has been defined along two dimensions: (i) pursuing economic growth and development while minimizing pressures on the quality of the environment and on the use of natural resource; and (ii) harnessing the growth potential that arises from addressing environmental concerns. An important question that arises with the measurement of green growth is how to define and measure "growth". Moving towards green growth requires paying attention to the quality and composition of growth, as well as to the question of who ultimately benefits from growth: gross domestic product (GDP) is a less-than-perfect tracker of material well-being, let alone of other dimensions that

[1] See also E/CN.3/2011/9.

shape people's quality of life, such as health, social contacts or security; and the work on green growth indicators links up with the ongoing debate on the conceptual and empirical work to better measure quality of life.

38. The work on green growth indicators proceeds along five types of indicators: (i) the environmental efficiency of production; (ii) the environmental efficiency of consumption; (iii) the natural asset base of the economy; (iv) the environmental dimension of quality of life; and (v) society responses. The toolkit of indicators defined so far amounts to about 30 indicators to do justice to the various aspects of green growth and identifies a few "headline" indicators that should be representative of the main challenges associated with green growth and that would have the potential to raise high-level political attention. The work on green growth indicators has revealed many data gaps and sometimes heterogeneous concepts across countries. This shows the usefulness of a fully developed SEEA for common methodologies and monitoring growth. It is therefore expected that the need to implement SEEA will be one of the conclusions on measurement arising from the report.

39. The work on material flows and resource productivity is undertaken in response to the recommendations of the OECD Council on material flows and resource productivity (April 2004 and March 2008). In 2010 and 2011, particular attention has and will be given to the further development of the information base and of related indicators, and to the preparation of a fact-based report on material flows and resource productivity in OECD countries and beyond.

40. The review of the OECD state of the environment questionnaire, in close cooperation with Eurostat, the United Nations Statistics Division, the United Nations Environment Programme (UNEP) and the Intersecretariat Working Group on Environment Statistics was launched in 2009. It takes into account recent developments in the field of environment statistics and environmental accounting. A restructured and updated set of questionnaire sections will be available in 2012.

4. Eurostat work related to the work programme of the Committee of Experts

41. In the context of the Stiglitz report[2] and the European Commission communication entitled "GDP and beyond: measuring progress in a changing world", research was initiated to consider information required for the production of more relevant indicators of economic performance and social progress, assess the feasibility of alternative measurement tools and discuss how to present this information in an appropriate way. In the following paragraphs the initiatives by OECD and Eurostat are listed.

42. Eurostat and the National Institute of Statistics and Economic Studies of France (INSEE) have put in place a sponsorship group on measuring progress, well-being and sustainable development. The work is organized within three task forces on the following themes: (i) households' perspective and distributional aspects of income, consumption and wealth; (ii) environmental sustainability; and (iii) multidimensional measures of quality of life. A fourth task force on cross-cutting issues will develop a common frame of reference for the work on indicators of the three thematic task forces.

[2] See also E/CN.3/2011/35.

43. Most relevant to the Committee activity is the second task force which is currently developing a set of recommendations to be followed when setting up a list of indicators to measure environmental well-being and sustainability. The recommendations will stress in particular the importance of choosing, whenever possible, indicators derived from an accounting framework. It will therefore encourage the gradual development of environmental accounts based on SEEA.

44. The sponsorship group is expected to provide priorities, sources, and legislation proposals for European Union countries, and guidance on how to reorganize production of statistics. The next meeting of the sponsorship group is planned for the second half of 2011, after the delivery of the reports by the task forces. A final report of the sponsorship group is expected at the end of 2011.

5. Intersecretariat Working Group on Environment Statistics

45. The Intersecretariat Working Group on Environment Statistics handled a lot of coordination issues in international data collections, with special reference to geographical coverage by the different organizations to avoid duplication of data collection from countries. This has become more challenging since OECD and Eurostat widened the scope of their data collections beyond their member States (candidate, accession, partner, neighbour country programmes). As the depths of the data collections differ from one group of countries to the other, duplication cases have to be resolved on a one-by-one basis requiring continuous coordination and agreements on data sharing.

46. There will be a major revision of the OECD/Eurostat joint questionnaire in the period 2010-2012 that has to be coordinated with the Statistical Division and UNEP to ensure the compatibility of the questionnaires. The process will take into account recent developments in the field of environment statistics and environmental-economic accounting.

47. Work on the joint glossary is ongoing, with a focus on terms related to water (taking into account the international recommendations for water statistics) and waste statistics used in the international questionnaires. Further harmonization of terms and definitions will be part of the 2010-2012 questionnaire revision process.

48. Recognizing their increasing activity in environment statistics and the related need for coordination, the Intersecretariat Working Group on Environment Statistics co-opted the Economic and Social Commission for Western Asia and the Economic Commission for Latin America and the Caribbean as its regular members and invited the European Environment Agency to join the group.

49. In view of the increasing tasks and growing membership of the Intersecretariat Working Group on Environment Statistics, the members recommended holding annual two-day Intersecretariat Working Group meetings, with the venue to be rotated among the member organizations' headquarters, instead of the back-to-back half- or one-day meetings that usually focus on European events.

6. OECD/Eurostat task force on emission permits in the national accounts

50. One of the issues in the issue list for the revised SEEA is the recording of emission permits. In this regard, the decision on the recording of emission permits in the System of National Accounts is of high relevance for the SEEA revision.

51. The 2008 System of National Accounts does not fully address the recording of tradable emission permits. The Advisory Expert Group on National Accounts, at its most recent meeting in November 2008, discussed the issue and recommended forming a task force to consider the treatment of emission allowances and permits in the national accounts. The task force was established by OECD and Eurostat under the auspices of the Intersecretariat Working Group on National Accounts.

52. The task force took as its starting point the 2008 System of National Accounts and the results of the discussion at the Advisory Expert Group on National Accounts. The 2008 System of National Accounts recommends that payments for permits relating to emission into the atmosphere should be recorded as taxes at the time payments are made, and that the market value of the permits be recorded as non-produced non-financial assets. The task force made considerable progress in understanding the operation of cap and trade schemes, although it has also considered other types of permits, and in articulating their recording in the accounts of the 2008 System of National Accounts under various alternatives.

53. The task force considered two alternatives in particular. Both treat the payments for permits as taxes, but propose that the taxes should be recorded on an accrual basis at the time that the emission occurs and paid by the emitters as taxes on production. However, they differ in two respects: (a) the value of the taxes; and (b) the type of assets involved. The first alternative proposes that the prepayment of tax (the timing difference between cash received by government for the permits and the time of the emission) gives rise to accounts receivable and payable and the difference between the prepayment of tax and the market price of permits represents a marketable contract (a non-produced non-financial asset) for the holder. The second alternative proposes that the emission permits represent a financial asset (for the holder) and a liability (for the issuer) valued at market price and that taxes are recorded at the market price of permits at the time that emissions take place. The task force could not reach consensus on which of the two alternatives should be recommended.

54. All members of the task force recognized the importance of resolving the issue. As such, the issue has been deferred to the Intersecretariat Working Group on National Accounts, which has been asked to recommend one of the alternatives described above. The Working Group was due to make its decision after the finalization of the present report. As the proposals of the task force are regarded as a clarification issue, the decision of the Working Group will be published in "SNA News and Notes" according to the update procedures adopted by the Commission.

7. Joint Economic Commission for Europe/Eurostat/OECD task force on measuring sustainable development

55. The joint ECE/Eurostat/OECD task force on measuring sustainable development established by the Conference of European Statisticians has been working to further advance the conceptual framework based on the capital approach, in particular in areas like human and social capital. The task force decided to broaden the conceptual work to present the distributional aspects of sustainable development or the measurement of current well-being. The task force follows up

on work done by a previous task force on developing a sustainable development framework based on the capital approach, which was published in 2009.[3]

56. The work has progressed in several directions. The task force prepared a draft report that highlights the importance of both the present and the future aspects of welfare. In terms of measurement, this led to the proposal to also include indicators on the quality of life, in order to take into account the needs of the present generations. The task force plans to finalize its report in 2011.

57. The work of the task force is strongly linked to the work undertaken by other institutions, such as the most recent recommendations contained in the report issued by the Stiglitz Commission, the European Commission initiative "GDP and Beyond", and the Global Project on Measuring the Progress of Societies. The task force follows closely the work of the sponsorship group on measuring progress of societies initiated by Eurostat and INSEE.

8. Economic Commission for Europe intersectoral task force on environmental indicators

58. A task force on environmental indicators established in 2009 by two ECE sectoral committees (Committee on Environmental Policy and Conference of European Statisticians) continued its work towards improving data production and to promote comparability of environmental statistics in the countries of Eastern Europe and Central Asia. Environmental indicators in key areas such as clean air, energy, drinking water, waste, forest biodiversity, sustainable transport, etc. were reviewed and experiences exchanged. The Statistical Division was actively involved in the work of the task force by providing financial support and expert knowledge.

59. During the three meetings held in the period 2009-2010, the task force reviewed more than half of the 36 indicators recommended by the guidelines for the application of environmental indicators in Eastern Europe, Caucasus and Central Asia (indicator guidelines), which were endorsed at the ministerial conference held on the theme "Environment for Europe" in 2007. The task force also considered indicators that are important but are currently not included in the indicator guidelines; namely, an indicator on environmental expenditures, agri-environmental indicators and energy and environment indicators. In November 2010, the Committee on Environmental Policy and the Bureau of the Conference of European Statisticians extended the mandate of the task force for two more years. The work will continue in 2011 to review the rest of the indicators.

9. Activities on climate change statistics of the Economic Commission for Europe

60. The Bureau of the Conference of European Statisticians asked the secretariat of ECE to undertake a survey among the members of the Conference of European Statisticians to explore the degree to which national statistical offices are involved in climate change-related work and to identify countries' needs to be addressed at the international level. For this purpose, the secretariat prepared a questionnaire in consultation with experts from Statistics Norway, Statistics Finland, Eurostat and the European Environment Agency. The questionnaire was endorsed by the Bureau of the Conference of European Statisticians in November 2010.

[3] See http://www.unece.org/stats/publications/Measuring_sustainable_development.pdf.

61. The questionnaire consists of three parts:

(a) Greenhouse gas emissions: focuses on the involvement of national statistical offices in producing data for emission inventories;

(b) Climate change indicators: deals with indicators measuring the impact of climate change;

(c) General questions: includes questions about concerns, priorities, future plans, etc.

62. The survey will be carried out in close collaboration with Eurostat and in coordination with the Statistical Division. The Committee of Experts expressed support for the work and asked ECE to report on the outcome of the survey at its next meeting in June 2011. The Committee of Experts and the Statistical Division also asked the ECE secretariat to extend the survey to a few more countries outside the Conference of European Statisticians in order to ensure more global coverage. The ECE secretariat will proceed with the survey in 2011.

VI. Points for discussion

63. **The Commission may wish to:**

(a) **Review and endorse the recommendations on the issues of volume 1 of the forthcoming SEEA revision;**

(b) **Express its views on the progress of work of the Committee.**

Annex

Working outline: SEEA, volume I

Foreword/preface

Acknowledgements

Chapter 1 Introduction

1.1 What is the System of Environmental and Economic Accounts?

1.2 Policy relevance and uses of SEEA

1.3 Conceptual elements of SEEA

A broad overview of the key elements, terminology and boundaries of the System

1.4 Key features of the System

1.4.1 SEEA as a framework for organizing statistics

1.4.2 Combining accounts in physical and monetary terms

1.4.3 Flexibility in implementation

1.4.4 Approaches to dissemination and reporting

1.5 Relationship of SEEA to other statistical standards

1.5.1 Linkages between SEEA and 2008 SNA

1.5.2 Linkages between SEEA and subsystems of SEEA

(e.g., SEEA-Water, SEEA-Energy)

1.5.3 The relationship to other standards for environmental statistics

(e.g., international recommendations for energy statistics, international recommendations for water statistics)

1.5.4 The relationship to standard international classifications
(e.g., Central Product Classification (CPC), International Standard Industrial Classifications of All Economic Activities (ISIC))

1.6 Structure of the SEEA manual — a reader's guide

1.6.1 Role of volumes I, II and III

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1.6.3 Chapter 3: Physical flow accounts

1.6.4 Chapter 4: Monetary flow accounts

1.6.5 Chapter 5: Asset accounts

1.6.6 Chapter 6: Summarizing and integrating the accounts

Chapter 2 Accounting structure and concepts

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2.2 Accounting concepts

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Physical flows

Materials (natural materials, products, residuals)

Water

Energy

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Depletion and degradation

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Introduction to depreciation, depletion and degradation

2.3 Accounting rules and assumptions

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2.3.2 Units of measurement

2.3.3 Residence and national territory

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Monetary terms

2.3.5 Basic, producer and purchaser's prices

2.3.6 Timing of valuation (end of period pricing/average period pricing)

2.4 Accounting units

2.4.1 Economic units

Sectors (e.g., corporations, households, general government)

Industries

2.4.2 Environmental units

Ecosystems

2.5 Accounting boundaries

This section needs to clarify the boundaries for SEEA as a whole manual, the differences between boundaries for volumes 1 and 2 and the distinctions where relevant between SEEA and SNA asset and production boundaries.

2.5.1 Boundary between the environment and the economy

2.5.2 Production boundary

2.5.3 Asset boundary

2.5.4 Geographical boundaries

2.6 SEEA classifications

This section should introduce the range of different classifications used in SEEA and related to SEEA. All detail should be discussed in the relevant chapter, in an annex or referenced in the relevant documentation relating to the particular classification. The use of bridge tables should be introduced here.

2.7 The connections between the SEEA accounts

2.7.1 Physical flow accounts

2.7.2 Monetary supply and use tables

2.7.3 Environmental expenditure accounts

2.7.4 Hybrid flow accounts

2.7.5 Asset accounts

2.8 SEEA aggregates and indicators

The intention in this section is to highlight that the accounting framework of SEEA contains a range of different totals, aggregates and indicators, etc. that can be useful for analysis and research. The detail regarding the different measures would be presented in relevant sections and this section should give only an overview. The section will clarify the use of terms such as aggregates and indicators that have been interpreted very differently. It is not intended to present any details on weighted indicators that do not emerge naturally from the accounting framework.

Aggregates and indicators from physical flow tables

Aggregates and indicators from monetary and hybrid accounts

Aggregates and indicators from environmentally adjusted SNA accounts

Chapter 3 Physical flow accounts

3.1 Introduction

3.2 Measurement framework for physical flows

3.2.1 Types of flows

Flows from the environment to the economy

Flows within the economy

Flows from the economy to the environment

3.2.2 Classifications of physical flows

Natural materials

Products

Residuals (including waste)

3.3 Principles of physical flow accounting

3.3.1 Introduction

3.3.2 Physical supply and use (SU) tables and input/output (IO) tables

3.4 Material flow accounts

3.4.1 Introduction

Covers flows of natural materials, products and residuals

3.4.2 Physical SU tables for materials

3.4.3 Classification and boundary issues

3.4.4 Accounting for losses

3.4.5 Aggregation and aggregates

3.4.6 Specific material flow accounts

3.4.6.1 Waste accounts

3.4.6.2 Air emission accounts

(links to energy flow accounts section 3.5)

3.4.6.3 Water emission accounts

(links to water flow accounts section 3.6)

3.4.7 Material flow analysis (MFA)

3.4.7.1 Basic principles of MFA

3.4.7.2 Types of MFA tables (e.g., economy wide, substance flow)

3.4.7.3 Classification and boundary issues

(e.g., application of the harvest approach)

3.4.7.4 Aggregation and aggregates

3.5 Energy flow accounts

3.5.1 Introduction

3.5.2 Physical SU table for energy resources

3.5.3 Physical SU table for energy products

3.5.4 Energy accounts

3.5.5 Classification and boundary issues

(e.g., treatment of renewable energy sources)

3.5.6 Accounting for losses

3.5.7 Aggregation and aggregates, including links to energy balances and links to SEEA-E

3.6 Water flow accounts

3.6.1 Introduction

3.6.2 Description of the hydrological cycle

3.6.3 Physical SU table for water

3.6.4 Water accounts

3.6.5 Classification and boundary issues

(e.g., treatment of waste water, return flows)

3.6.6 Accounting for losses

3.6.7 Aggregation and aggregates, including links to SEEA-W

Chapter 4 Monetary flow accounts

4.1 Introduction

Identifying flows within an SNA framework

Description of the functional approach to satellite accounts in SNA

4.2 Monetary supply and use tables

4.2.1 Basic principles

4.2.2 Monetary SU tables

4.2.3 Conceptual and boundary issues

(e.g., goods for processing, ancillary production)

4.2.4 Valuation issues

4.2.5 Aggregation and aggregates

4.3 Environmental activities in the economy

This section will discuss relevant definitions, classifications and tables following the various approaches to identifying environmental activities within SNA accounts.

4.3.1 Introduction

Purpose-based approaches to environmental accounting

The scope and definition of environmental activities

Environmental protection, resource management and use, minimization of natural hazards

Classifications of environmental activities

Classification of Environmental Protection Activities (CEPA), Classification of Resource Management Activities (CReMA), Classification of Resources Use and Management Activities (CRUMA)

4.3.2 Environmental Goods and Services Sector (EGSS)

Environmental domains

Environmental protection

Resource management

Environmental output

4.3.3 Environmental Protection Expenditure

Basic principles

Classifications

Environmental Protection Expenditure Accounts (EPEA)

4.3.4 Natural resource use and management expenditure

Basic principles

Classifications

Resource use and management expenditure accounts (RUMEA)

4.4 Other environmentally related transactions

This section will define the relevant transactions within SNA, especially in the context of the sector accounts of SNA (e.g., general government accounts). Aggregates will be defined where relevant.

4.4.1 Environmentally related taxes

4.4.2 Environmentally related subsidies

(including current and capital transfers)

4.4.3 Environmentally related fees, charges, fines and penalties

4.4.4 Permits, allowances and other payments relating to emissions

(including tables recording emission permits and allowances)

4.4.5 Rent, royalties and other payments relating to use of resources

4.4.6 Costs of ownership transfers

4.4.7 Terminal and decommissioning costs

4.4.8 Depletion and other decreases in natural resources

4.4.9 Discoveries and other increases in natural resources

4.5 Reporting and key aggregates for environmental monetary transactions

Chapter 5 Asset accounts

5.1 Introduction

5.2 Asset boundary and classification (expanding from chap. 2)

5.2.1 Asset boundary

5.2.2 Classification of assets

5.3 Principles of asset accounting

5.3.1 Description of different valuation techniques

5.3.2 Estimating NPV of assets

Basic principles

Estimating resource rent (alternative approaches and decision criteria)

Applying discount rates

Rates of return on fixed assets

5.3.3 Measurement of depletion

5.3.4 Measurement of degradation

5.3.5 Revaluation and holding gains

5.4 Asset accounts for land

5.4.1 Asset characteristics

5.4.2 Classification and boundary issues

Land use and land cover

Surface water/Exclusive Economic Zone (EEZ)/High seas

5.4.3 Measuring opening and closing levels in physical terms

5.4.4 Measuring changes in asset levels in physical terms

5.4.5 Accounts for land changes in physical terms

5.4.6 Measuring opening and closing levels in monetary terms

5.4.7 Accounts for land in monetary terms

5.4.8 Special issues

Treatment of renewable energy sources

Accounting for split resource ownership

Permits to use land

5.5 Asset accounts for mineral and energy resources

5.5.1 Asset characteristics

5.5.2 Categorization, classification and boundary issues

United Nations Framework Classification for Fossil Energy and Mineral Resources and links to McKelvey Box

5.5.3 Measuring opening and closing levels in physical terms

5.5.4 Measuring changes in asset levels in physical terms

5.5.5 Asset accounts for mineral and energy resources in physical terms

5.5.6 Measuring opening and closing levels in monetary terms

5.5.7 Accounting for changes in asset levels

Depletion

Discoveries

Other changes in assets

5.5.8 Asset accounts for mineral and energy resources in monetary terms

5.5.9 Special issues

Treatment of renewable energy sources

Mineral exploration and extraction activity

Accounting for split resource ownership

Treatment of terminal and decommissioning costs

Permits to access resources and royalty flows

5.6 Asset accounts for water

5.6.1 Asset characteristics

5.6.2 Classification and boundary issues

Stocks of water resources

Transboundary water resources

5.6.3 Measuring opening and closing levels in physical terms

5.6.4 Accounting for changes in asset levels

5.6.5 Asset accounts for water in physical terms

5.6.6 Special issues

Valuation of water

Artificial reservoirs

Permits for water use and access to water

5.7 Asset accounts for forests

5.7.1 Asset characteristics

5.7.2 Classification and boundary issues

5.7.3 Measuring opening and closing levels in physical terms

5.7.4 Measuring changes in asset levels in physical terms

5.7.5 Asset accounts for forests in physical terms

5.7.6 Measuring opening and closing levels in monetary terms

5.7.7 Accounting for changes in asset levels

Depletion and natural growth

Other changes in assets

5.7.8 Asset accounts for forests in monetary terms

5.7.9 Special issues

Carbon sequestration and carbon accounting

Permits to access forest resources

5.8 Asset accounts for fish

5.8.1 Asset characteristics

5.8.2 Classification and boundary issues

5.8.3 Measuring opening and closing levels in physical terms

5.8.4 Measuring changes in asset levels in physical terms

5.8.5 Asset accounts for fish resources in physical terms

5.8.6 Measuring opening and closing levels in monetary terms

5.8.7 Accounting for changes in asset levels

Depletion and natural growth

Other changes in assets

5.8.8 Asset accounts for fish resources in monetary terms

5.8.9 Special issues

Quotas

5.9 Accounting for other biological resources

5.9.1 Asset characteristics

Covers livestock, other animals, crops and plant resources

5.9.2 Classification and boundary issues

5.9.3 Measuring opening and closing levels in physical terms

5.9.4 Measuring changes in asset levels in physical terms

5.9.5 Measuring opening and closing levels in monetary terms

5.9.6 Accounting for changes in asset levels

Depreciation of cultivated biological resources

Depletion of non-cultivated biological resources

Other changes in assets

5.10 Accounting for soil resources

5.10.1 Asset characteristics

5.10.2 Classification and boundary issues

Relationship to land

5.10.3 Measuring opening and closing levels in physical terms

5.10.4 Measuring changes in asset levels in physical terms

5.10.5 Measuring opening and closing levels in monetary terms

5.10.6 Accounting for changes in asset levels

Depletion and degradation

Other changes in assets

Chapter 6 Summarizing and integrating the accounts

6.1 Introduction

This section should provide the motivation for and benefits of merging of physical and monetary data and for compiling and analysing environmental information within an accounting framework.

6.2 Hybrid flow accounts and tables

6.2.1 Principles of hybrid accounts and tables

Assumptions, scope and limitations

Classification and boundary issues

Hybrid SU and IO tables

Values, quantities, volumes and prices

6.2.2 Common hybrid flow accounts and tables

This section should give a clear exposition of how hybrid flow accounts and tables can be constructed in several common areas. It should show the potential for expansion to include flows other than supply and use flows, especially emissions, depletion and consumption measures.

6.3 Environmental expenditure accounts

This section aims to provide the context for purpose-based environmental expenditure accounts (such as EPEA and RUMEA) within the broader field of environmental accounting. There are close links to the discussion of this topic in chapter 4.

6.4 Full sequence of SEEA monetary flow accounts

6.4.1 Introduction

The economic accounts in SNA are structured such that there are clear links between the various accounts and balancing items can be followed from one account to the next. Thus a sequence of economic accounts is formed in SNA. A comparable sequence can be formed for the monetary accounts of SEEA whereby links are made between production, income, transfers, capital and balance sheets. This chapter explains the full sequence of SEEA monetary accounts. Of particular interest is the derivation of aggregates of interest such as depletion adjusted operating surplus and GDP.

6.4.2 Standard sequence of accounts

Flow accounts

Accumulation accounts

Balance sheets

6.4.3 Aggregation and aggregates

Depletion adjusted GDP, etc.

6.5 Accounting for environmental disasters

6.5.1 Accounting for natural processes that impact on the economy (e.g., Iceland volcano, floods in Pakistan)

6.5.2 Accounting for man-made disasters that impact on the environment (e.g., British Petroleum oil spill)

6.6 Other analytical directions

Introduction to volume 3